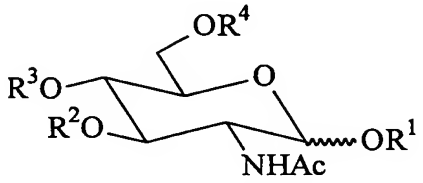
CLAIMS

1. An N-acetylglucosamine derivative represented by the following formula (1):

formula (1)

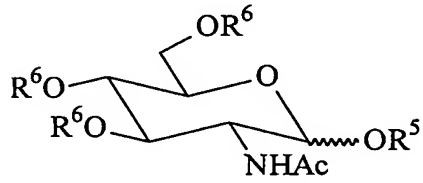


wherein R^1 is a hydrogen atom or an alkyl group having 2 to 18 carbon atoms; R^2, R^3, and R^4 are hydrogen atoms or acyl groups having 2 to 18 carbon atoms and may be all the same or different from others; the steric structure at position 1 may be α or β; provided that R^1, R^2, R^3, and R^4 must not be all hydrogen atoms.

2. A skin external preparation containing the N-acetylglucosamine derivative according to claim 1.

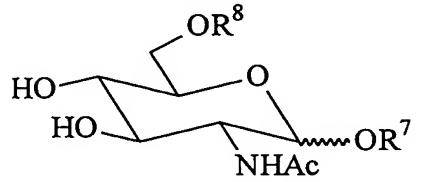
3. An N-acetylglucosamine derivative represented by the following formula (2) or (3):

formula (2)



wherein R^5 is an alkyl group having 2 to 18 carbon atoms; R^6 is a hydrogen atom or an acetyl group; and the steric structure at position 1 may be α or β: or

formula (3)

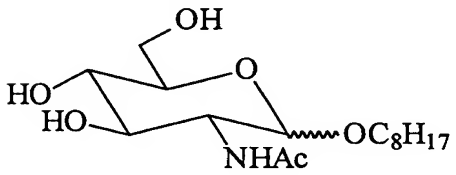


wherein R^7 is a hydrogen atom or an alkyl group having 2 to 18 carbon atoms; R^8 is an acyl group having 2 to 18 carbon

atoms; and the steric structure at position 1 may be α or β.

4. An N-acetylglucosamine derivative represented by the following formula (4):

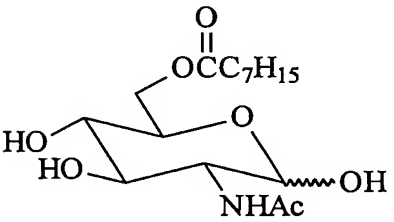
formula (4)



wherein the steric structure at position 1 may be α or β.

5. An N-acetylglucosamine derivative represented by the following formula (5):

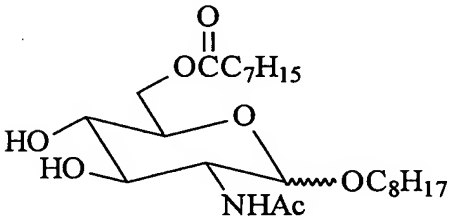
formula (5)



wherein the steric structure at position 1 may be α or β.

6. An N-acetylglucosamine derivative represented by the following formula (6):

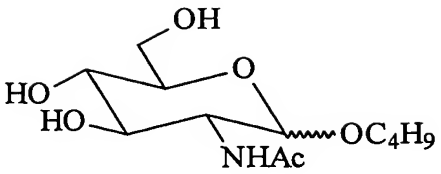
formula (6)



wherein the steric structure at position 1 may be α or β.

7. An N-acetylglucosamine derivative represented by the following formula (7):

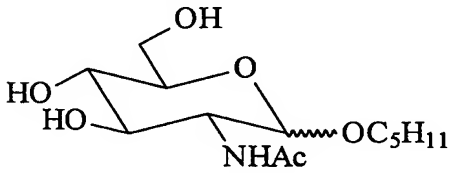
formula (7)



wherein the steric structure at position 1 may be α or β.

8. An N-acetylglucosamine derivative represented by the following formula (8):

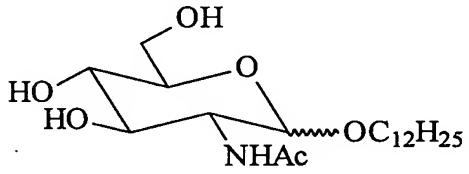
formula (8)



wherein the steric structure at position 1 may be α or β.

9. An N-acetylglucosamine derivative represented by the following formula (9):

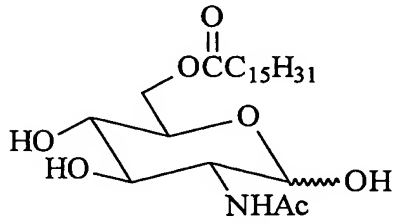
formula (9)



wherein the steric structure at position 1 may be α or β.

10. An N-acetylglucosamine derivative represented by the following formula (10):

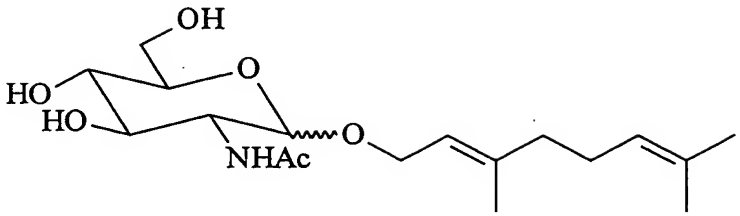
formula (10)



wherein the steric structure at position 1 may be α or β.

11. An N-acetylglucosamine derivative represented by the following formula (11):

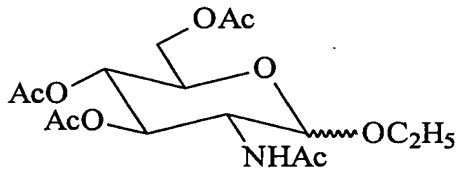
formula (11)



wherein the steric structure at position 1 may be α or β.

12. An N-acetylglucosamine derivative represented by the following formula (12):

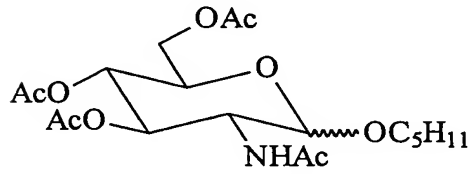
formula (12)



wherein the steric structure at position 1 may be α or β.

13. An N-acetylglucosamine derivative represented by the following formula (13):

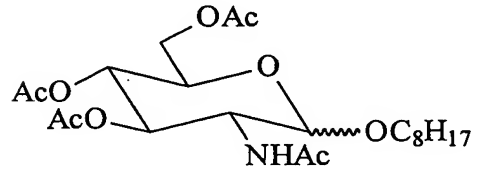
formula (13)



wherein the steric structure at position 1 may be α or β.

14. An N-acetylglucosamine derivative represented by the following formula (14):

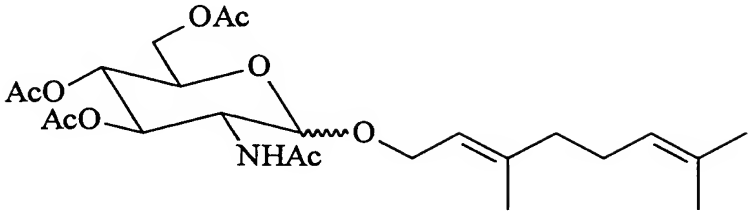
formula (14)



wherein the steric structure at position 1 may be α or β.

15. An N-acetylglucosamine derivative represented by

the following formula (15):
formula (15)

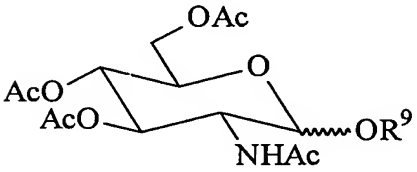


wherein the steric structure at position 1 may be α or β.

16. A skin external preparation containing the N-acetylglucosamine derivative according to claim 3.

17. A hyaluronic acid production-promoting agent containing the N-acetylglucosamine derivative according to claim 3 as active ingredient.

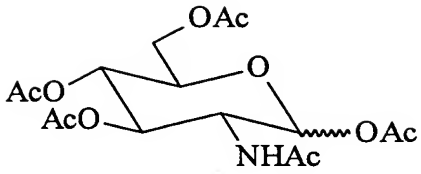
18. A hyaluronic acid production-promoting agent containing an N-acetylglucosamine derivative represented by the following formula (16) as active ingredient:
formula (16)



wherein R^9 is an acyl group having 2 to 16 carbon atoms and the steric structure at position 1 may be α or β.

19. A skin external preparation containing the N-acetylglucosamine derivative according to claim 18.

20. A skin external preparation containing as active ingredient the N-acetylglucosamine derivative represented by the following formula (17):
formula (17)



wherein the steric structure at position 1 may be α or β.